

Abstract

[0049] Active back bias voltage, applied to wells of N-MOS and P-MOS transistors of a small geometry integrated circuit, is used to set the threshold voltages and leakage currents precisely in order to improve speed and at the same time control device sub-threshold leakage. The active back bias applies a voltage to the well of devices on the small geometry integrated circuit. The voltage with increases until the leakage current goes to a predetermined level. If the leakage increases with age, temperature, V_{DD} voltage or other conditions the bias supply from the active back bias generator compensates.

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